



AF/3621
IHW

Application No. 09/884,296

Applicants: Adler et al.

Filed: June 19, 2001

Title: Using a Privacy Agreement Framework to Improve Handling of Personally Identifiable Information

T.C./A.U.: 3621

Examiner: James A. Reagan

Docket No.: AUS920010620US1

Customer No.: 46033

Commissioner for Patents
PO Box 1450
Alexandria VA 22313-1450

Brief on Appeal

Sir:

In response to the Office action of September 9, 2004, and in connection with the Notice of Appeal filed on November 11, 2004, the Assignee (IBM) respectfully submits the following Brief on Appeal.

Real Party in Interest

The real party in interest in the present appeal is International Business Machines Corporation (IBM), the assignee, as evidenced by the assignment set forth at reel 011952, frame 0737.

Related Appeals and Interferences

None.

Status of Claims

Original claims 1-15 stand finally rejected by the examiner. Claims 1-15 are the claims on appeal.

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Status of Amendments

No amendments were filed subsequent to final rejection.

Summary of Claimed Subject Matter

The claimed subject matter relates generally to information handling, and more particularly to methods and systems to improve handling of personally identifiable information. In light of laws and public concern regarding privacy, there is a need for systems and methods to improve the handling of personally identifiable information.

Independent Claim 1 involves identifying the parties involved in a process of handling personally identifiable information; identifying the data involved in the process; classifying the data; expressing each relationship between each pair of the parties in terms of a privacy agreement; and representing the parties, data, and privacy agreements graphically in one or more privacy agreement relationship diagrams.

For example, as described in the specification (Page 23, Lines 5-16, or Paragraph 0087 of the published version) and as shown in FIG. 7, the parties are identified (e.g. the book of the month club subscriber 721; the Subscription Department 722, Shipping Department 723, Billing Department 724, and Marketing Department 725 of Borderless Books, an online bookstore). The data is identified and classified (e.g. subscription data 711 are personally identifiable information (PII); purchasing patterns (not shown) are PII). The privacy contracts or privacy agreements 710, 702, 703, 704, 705, 706, 707, and 708 are built between each pair of parties for each different purpose. These elements are then represented graphically in one or more

privacy agreement relationship diagrams such as FIG. 7.

For example, a privacy agreement between the Book of the Month Club Subscriber and the Borderless Books Subscription Department may look like the table in the specification at Pages 21-23, or Paragraph 0086 of the published version.

Independent Claim 6 involves a system capable of executing the method described above. “The production of privacy agreement relationship diagrams ... may involve a consultant's computer interacting with a client organization's computer via a network, for example.” Specification Page 23, or Paragraph 0087 of the published version. The “methods described are conveniently implemented in a general-purpose computer selectively activated or reconfigured by software....” Specification Page 24, Lines 10-25, or Paragraph 0090 of the published version. See also FIG. 1.

Independent Claim 11 involves a set of instructions on a computer-usable medium, or resident in a computer system, for executing the method described above. A possible implementation “is an application, namely a set of instructions (program code) in a code module which may, for example, be resident in the random access memory of a computer. Until required by the computer, the set of instructions may be stored in another computer memory, for example, in a hard disk drive, ... or downloaded via the Internet or other computer network.” Specification Page 24, Lines 10-25, or Paragraph 0090 of the published version.

Grounds of Rejection to be Reviewed on Appeal:

The assignee respectfully asserts that:

1. It was erroneous to reject Claims 1-5, under 35 U.S.C. 101, as being directed to nonstatutory subject matter. A prima facie case of nonstatutory subject matter has not been established.
2. It was erroneous to reject Claims 1-15, under 35 U.S.C. 103, over King, European Patent Application EP1,081,916A2, in view of Kroenke, *Database Processing: Fundamentals, Design & Implementation*, Chapter 3, and further in view of Spies, US Patent 5,689,565. A prima facie case of obviousness has not been established.

Argument

1. Argument regarding Claims 1-5, 35 U.S.C. 101 and statutory subject matter.

The proper standard for patentable subject matter is found in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 1373, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998), cert. denied, 525 U.S. 1093 (1999), and quoted in MPEP 2106 II. A.: “The claimed invention as a whole must accomplish a practical application. That is, it must produce a ‘*useful, concrete and tangible result*.’” [Emphasis added.]

MPEP 2106 II. A. also states: “*Office personnel have the burden to establish a prima facie case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result.*” [Emphasis added.]

It is clear that a useful, concrete and tangible result is produced by rejected Claims 1-5, when these claims are read in light of the specification (e.g. pages 10-24, and FIG. 7). Claim 2 provides an example that can be briefly stated here: “mapping a

business process to the privacy rules that should govern the behavior of each pair of parties.” See also the description at Page 23, or Paragraph 0088 of the published version of the specification: “Using this Privacy Agreement Framework, any business process can be mapped to the privacy rules that should govern the behavior of each pair of parties. The value to organizations is a clear pictorial representation, such as FIG. 7, of privacy-implicated relationships in the terms that organizations understand best - their own business entities and processes.” In the present patent application, the Office cannot show that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Thus the Office has not satisfied its burden to establish a *prima facie* case of nonstatutory subject matter.

The Office is not free to demand that method claims contain certain physical limitations, naming some “technological apparatus.” (See Office action of September 9, 2004, Page 3: “... the recited steps ... do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed without the use of any technological apparatus” No authority is cited for this.) On the contrary, MPEP 2106 II. A. contains examples of “claimed inventions that have a practical application because they produce useful, concrete, and tangible result.” One of these examples is a case where claims (with method steps which did not name any apparatus) were drawn to a long-distance telephone billing process, and were held to be directed to patentable subject matter, because “the claimed process applies the Boolean principle to produce a useful, concrete, tangible result” This is the case of *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999). MPEP cites *AT&T* again at MPEP 2106 IV B 2 (b) ii): “Computer-Related Processes Limited to a Practical Application in the

Technological Arts ... A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. See *AT&T...*”

The Office action at Page 3 appears to assert that method claims need to contain certain physical limitations, that name some “technological apparatus.” This is not supported by the MPEP, and is contrary to the above-mentioned court decision of *AT&T*. Consider claim 1 (the method steps do not name any apparatus) in *AT&T*, 172 F.3d at 1354: “A method for use in a telecommunications system in which interexchange calls initiated by each subscriber are automatically routed over the facilities of a particular one of a plurality of interexchange carriers associated with that subscriber, said method comprising the steps of:

generating a message record for an interexchange call between an originating subscriber and a terminating subscriber, and

including, in said message record, a primary interexchange carrier (PIC) indicator having a value which is a function of whether or not the interexchange carrier associated with said terminating subscriber is a predetermined one of said interexchange carriers.”

The trial court held all of the method claims at issue invalid for failure to qualify as statutory subject matter. However, the Court of Appeals reversed the trial court, writing: “Excel also contends that because the process claims at issue lack physical limitations set forth in the patent, the claims are not patentable subject matter. This argument reflects a misunderstanding of our case law. ...had the [trial] court applied the proper analysis to the stated claims, the court would have concluded that all the

claims asserted fall comfortably within the broad scope of patentable subject matter under § 101.” *AT&T*, 172 F.3d at 1361. As in the *AT&T* case, rejected claims 1-5 in the present case fall comfortably within the broad scope of patentable subject matter.

The Office action of September 9, 2004, on Page 3, states a test, without citing any authority: “For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.” The Assignee does not concede that this extra test is proper, considering the above-mentioned authorities. Even if this were a proper test, the present patent application passes that test. It is clear that technological arts are involved in rejected Claims 1-5, when these claims are read in light of the specification. “The production of privacy agreement relationship diagrams ... may involve a consultant's computer interacting with a client organization's computer via a network, for example.” Specification Page 23, or Paragraph 0087 of the published version. See also Pages 10-24, or Paragraphs 0035-0090 of the published version, and FIGS. 3-7. Thus the Office has not satisfied its burden to establish a *prima facie* case of nonstatutory subject matter.

2. Argument regarding Claims 1-15, 35 U.S.C. 103 and lack of a *prima facie* case of obviousness:

A. Limitations in the Rejected Claims Which Are Not Described in the References Relied On:

As stated in MPEP 2143 and 2143.03, a requirement for establishing a *prima facie* case of obviousness is that the reference or references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

The following language from rejected Claims 1, 6, and 11 provides an example of limitations in the rejected claims which are not described in the references relied on:

...expressing each relationship between each pair of said parties in terms of a privacy agreement; ...

wherein:

said privacy agreement uses a limited number of privacy-related actions concerning said personally identifiable information;

said privacy agreement expresses rules regarding said privacy-related actions, for each of said parties; and

said privacy agreement is specific to a single purpose.

See also the description and example of a privacy agreement at Pages 20-23, or Paragraphs 0081-0086 of the published version of the specification.

Nothing like this is found in the references the Office action relies on. Neither Kroenke nor Spies contain the phrase “privacy agreement.” Privacy is not a topic treated in the Kroenke chapter that the Office action relies on. That chapter describes developing a data model using the entity-relationship model. Concerning “privacy-related actions,” a phrase from rejected Claims 1, 6, and 11, the Office action cites Kroenke’s Figure 3-15, which is merely a list of entities in a sailboat charter business.

King happens to use the term “privacy agreement” in a narrow sense to mean something automatically “established between ... a client device and a content server,” for reporting the location of a cell phone or other wireless device. King, page 2, lines 50-53; page 4, lines 36-43. King’s example “privacy agreement”

concerns location and a location-based service (sending a tow truck to the location of a wireless client device). King, page 8, and page 2, lines 39-41. King mainly concerns reporting the location of a cell phone or other wireless device, a focus that is seen in each of King's drawings, Figures 1-10, or their written descriptions (*e.g.* absolute location object (ALO) in King's Figures 6 and 10, or handset location object (HLO) in King's Figures 8 and 9A).

King's "privacy agreement" clearly does not have the same meaning, and does not have the breadth of utility shown for a privacy agreement in the subject patent application (*e.g.* specification Pages 20-24, or Paragraphs 0081-0089 of the published version, including an example privacy agreement between a person and a bookstore's subscription department).

The following language from rejected Claims 1, 6, and 11 provides another example of limitations in the rejected claims which are not described in the references relied on: "representing said parties, said data, and said privacy agreements graphically in one or more privacy agreement relationship diagrams" Concerning this claim language, the Office action cites Kroenke's Figures 3-3 to 3-11, which are *entity*-relationship diagrams. Figure 3-3 illustrates a one-to-one relationship between an employee and an automobile, for example. A concern for privacy is not suggested in these.

B. Why the References, Taken as a Whole, Do Not Suggest the Claimed Subject Matter:

The cited references do not suggest a solution involving above-quoted subject matter of rejected Claims 1, 6, and 11 (privacy agreements for example). On the

contrary, King and Kroenke teach away from the claimed subject matter.

Teaching away is the antithesis of suggesting the claimed subject matter. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). King teaches away, by using the phrase “privacy agreement” in a narrow sense to mean something automatically established between “a wireless client *device* and a server *device*,” for reporting the location of a cell phone or other wireless device. King, page 4, lines 36-43 [emphasis added]. Thus King teaches away from: “expressing each relationship between each pair of said parties in terms of a privacy agreement,” where parties may be “natural persons, departments, computer systems, or organizations,” for example (language from Claim 1 and Paragraph 0085 in the subject patent application).

King mainly concerns reporting the location of a cell phone or other wireless device, so King teaches away from utilizing a privacy agreement for other purposes, such as a privacy agreement between a subscriber and a bookstore’s subscription department (example in Paragraph 0086 of the published version in the subject patent application). In an online bookstore, for example, a list of books purchased, together with the information on which subscriber purchased them, would be Personally Identifiable Information involved in a privacy agreement (see description of FIG. 5, Paragraph 0039, of the published version in the subject patent application). Other examples involving business, government and medicine are seen in the description of privacy-related actions, utilized by privacy agreements (description of FIG. 6, in Paragraphs 0064-0080 of the published version in the subject patent application). King leads away from such broadly useful subject matter, due to King’s focus on the location of a wireless device.

Kroenke teaches away from any solution involving privacy-related actions. The Kroenke chapter that the Office action relies on concentrates on things, not actions. Kroenke deals with entity relationship models. "With this model, entities - which are identifiable things of importance to the users - are defined." Kroenke, page 67. Kroenke teaches us "to determine potential entities. Entities are usually represented by nouns (places, persons, concepts, events, equipment, and so on) in documents or interviews." Kroenke, page 61. "Look for nouns that seem important to the design." Kroenke, page 65. Kroenke's focus is on nouns, not verbs (i.e. things, not actions).

C. Why Features Disclosed in One Reference May Not Properly Be Combined with Features Disclosed in Another Reference:

As stated in MPEP 2143 and 2143.01, a requirement for establishing a prima facie case of obviousness is that there must be some suggestion or motivation to combine reference teachings. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). As quoted in MPEP 2143.01: "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

A suggestion or motivation to combine reference teachings is absent in this case. Neither King nor Spies suggest the desirability of any particular kind of diagram or data model described by Kroenke. Kroenke does not suggest the desirability of King's location information for a cell phone. Kroenke does not suggest the desirability of Spies's approach to cryptography. Thus it was improper to combine these references as a basis for rejection of claims in the present case.

D. Nonanalogous Art Cannot Be Used to Establish Obviousness

As stated in *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992), and quoted in MPEP 2141.01(a) : "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned."

In the present case, the field of applicants' endeavor or the particular problem with which the inventors were concerned, are apparent in some excerpts from the subject patent application: "In light of laws and public concern regarding privacy, there is a need for systems and methods to improve the handling of personally identifiable information." Specification Page 2. "[A]ctions taken at block 205 are checking for compliance [with law or contract], and identifying ways to improve the information-handling process. The result is feedback to the information-handling process, at block 201." FIG. 2 and specification Page 9. "The production of privacy agreement relationship diagrams ... may involve a consultant's computer interacting with a client organization's computer via a network, for example." Specification Page 23, or Paragraph 0087. A diagram such as FIG. 7 facilitates "identifying opportunities to reduce privacy-related risks involved in business processes." Specification Page 24, or Paragraph 0089.

However, the cited references are not in the same field, and are not reasonably pertinent to the same problem. On the contrary, Kroenke's field is the fundamentals, design and implementation of databases, with no special concern for privacy. King is mainly concerned about location information for a cell phone or other wireless device. The Spies reference is in the field of cryptography: "keeping messages

secure from eavesdroppers.” Thus it was improper to rely on these references as a basis for rejection of claims in the present case.

3. Separate argument regarding Claim 2, 35 U.S.C. 103 and lack of a prima facie case of obviousness:

The following language from rejected Claim 2 provides another example of a limitation not taught or suggested in the references relied on: “mapping a business process to the privacy rules that should govern the behavior of each pair of parties.” To read this language from rejected Claim 2 in light of the specification, see the example of a privacy agreement at Pages 21-23, or Paragraph 0086 of the published version of the specification (especially sections marked “Rules for Party A in current context” and “Rules for Party B in current context”). See also the description of a privacy agreement at Page 20, or Paragraph 0083 of the published version of the specification: “The rules applied to these actions are derived from the organization's overall privacy policy.” See also the description at Page 23, or Paragraph 0088 of the published version of the specification: “Using this Privacy Agreement Framework, any business process can be mapped to the privacy rules that should govern the behavior of each pair of parties. The value to organizations is a clear pictorial representation, such as FIG. 7, of privacy-implicated relationships in the terms that organizations understand best - their own business entities and processes.”

The cited references (Kroenke and King) do not teach or suggest a solution involving above-quoted subject matter of rejected Claim 2. Concerning Claim 2, the Office action cites Kroenke’s page 67, merely containing a general discussion of choosing among different ways of modeling a business situation. Concerning Claim 2, the

Office action cites Kroenke's Figure 3-3, which is an entity-relationship diagram. Figure 3-3 illustrates a one-to-one relationship between an employee and an automobile, for example. A concern for privacy is not suggested in Kroenke's Figure 3-3. King teaches away from the claimed subject matter. King uses the phrase "privacy agreement" in a narrow sense to mean something automatically established between "a wireless client *device* and a server *device*," for reporting the *location* of a wireless device. King, page 4, lines 36-43 [emphasis added]. Thus King teaches away from "mapping a business process to the privacy rules that should govern the behavior of each pair of parties," where parties may be "natural persons, departments, computer systems, or organizations," for example (language from Claim 2 and Page 20 or Paragraph 0085 in the subject patent application). A prima facie case of obviousness has not been established.

Conclusion

For the reasons advanced above, Assignee respectfully contends that each claim is patentable, and requests the reversal of all rejections.

Respectfully submitted,



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Attachment: Claims Appendix

CLAIMS APPENDIX

1. A method for improving the handling of personally identifiable information, said method comprising:
identifying the parties involved in a process of handling personally identifiable information;
identifying the data involved in said process;
classifying the data;
expressing each relationship between each pair of said parties in terms of a privacy agreement; and
representing said parties, said data, and said privacy agreements graphically in one or more privacy agreement relationship diagrams,
wherein:
said privacy agreement uses a limited number of privacy-related actions concerning said personally identifiable information;
said privacy agreement expresses rules regarding said privacy-related actions, for each of said parties; and
said privacy agreement is specific to a single purpose.
2. The method of Claim 1, further comprising mapping a business process to the privacy rules that should govern the behavior of each pair of parties.
3. The method of Claim 1, further comprising identifying opportunities to reduce privacy-related risks involved in said process.
4. The method of Claim 3, further comprising identifying unnecessary exchanges of

data, for possible elimination.

5. The method of Claim 3, further comprising identifying opportunities to transform data into a less sensitive form.

6. A system for improving the handling of personally identifiable information, said system comprising:

means for identifying the parties involved in a process of handling personally identifiable information;

means for identifying the data involved in said process;

means for classifying the data;

means for expressing each relationship between each pair of said parties in terms of a privacy agreement; and

means for representing said parties, said data, and said privacy agreements graphically in one or more privacy agreement relationship diagrams,

wherein;

said privacy agreement uses a limited number of privacy-related actions concerning said personally identifiable information;

said privacy agreement expresses rules regarding said privacy-related actions, for each of said parties; and

said privacy agreement is specific to a single purpose.

7. The system of Claim 6, further comprising means for mapping a business process to the privacy rules that should govern the behavior of each pair of parties.

8. The system of Claim 6, further comprising means for identifying opportunities to

reduce privacy-related risks involved in said process.

9. The system of Claim 8, further comprising means for identifying unnecessary exchanges of data, for possible elimination.

10. The system of Claim 8, further comprising means for identifying opportunities to transform data into a less sensitive form.

11. A computer-usable medium having computer-executable instructions for improving the handling of personally identifiable information, said computer-executable instructions comprising:

means for identifying the parties involved in a process of handling personally identifiable information;

means for identifying the data involved in said process;

means for classifying the data;

means for expressing each relationship between each pair of said parties in terms of a privacy agreement; and

means for representing said parties, said data, and said privacy agreements graphically in one or more privacy agreement relationship diagrams,

wherein;

said privacy agreement uses a limited number of privacy-related actions concerning said personally identifiable information;

said privacy agreement expresses rules regarding said privacy-related actions, for each of said parties; and

said privacy agreement is specific to a single purpose.

12. The computer-usable medium of Claim 11, further comprising means for mapping a business process to the privacy rules that should govern the behavior of each pair of parties.

13. The computer-usable medium of Claim 11, further comprising means for identifying opportunities to reduce privacy-related risks involved in said process.

14. The computer-usable medium of Claim 13, further comprising means for identifying unnecessary exchanges of data, for possible elimination.

15. The computer-usable medium of Claim 13, further comprising means for identifying opportunities to transform data into a less sensitive form.



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Signature: *Paul D. Heydon*
Paul D. Heydon

RE: Docket No. AUS920010620US1. Application No. 09/884,296. Art Unit 3621.
Filing Date 06/19/2001. Examiner: James A. Reagan

Sir:

Transmitted herewith for filing is correspondence regarding the application of:
Inventors: Adler et al.

For: Using a Privacy Agreement Framework to Improve Handling of Personally Identifiable Information

Enclosed is:

 X Brief on Appeal (3 copies).

The fee for this Notice of Appeal (37 CFR 41.20(b)(2)) is \$340.

 X The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 09-0447. I have enclosed a duplicate copy of this sheet.

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Respectfully submitted,

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